AMENDMENTS TO THE CLAIMS:

Claim 1 (original): An object detecting device for emitting electromagnetic waves in a forward direction and detecting an object from reflected waves of said emitted electromagnetic waves; said object detecting device comprising:

emitting means for emitting said electromagnetic waves by scanning a scan range in horizontal and vertical directions;

receiving means for receiving said reflected waves;

level obtaining means for obtaining level of said reflected waves received by said receiving means;

calculating means for calculating a first correction value based on vertical position of a zone in said scan range where the level of said received waves is the highest and the center position of said scan range in the vertical direction; and

correcting means for correcting the center position in the vertical direction of said scan range based on said first correction value calculated by said calculating means.

Claim 2 (original): The object detecting device of claim 1 further comprising first storing means for storing said first correction value for each scan of said scan range, said calculating means calculating a next first correction value according to a previous first correction value calculated previously by said calculating means and stored in said first memory means.

Claim 3 (currently amended): The object detecting device of claim 2 wherein said calculating means sets said next first correction value~~, if the difference between said previous first correction value stored in said first memory means and said next first correction value is equal to or greater than a specified value, as being~~ equal to the sum of said previous first correction value and ~~said specified value~~ a specified value if the difference between said previous first correction value stored in said first memory means and said next first correction value is equal to or greater than said specified value.

Claim 4 (original): The object detecting device of claim 1 further comprising a histogram storing means for storing a histogram of first correction values calculated by said calculating means and frequency numbers of corrections effected by said correcting means, wherein, when the first correction value calculated by said calculating means satisfies specified conditions, one is added to the frequency number in said histogram corresponding to the first correction value calculated by said calculating means.

Claim 5 (original): The object detecting device of claim 1 installed on a vehicle, wherein said conditions include that the distance between said vehicle and said object as measured by said object detecting device be within a specified range, that the absolute value of said first correction value be less than a specified maximum value and that the speed of said vehicle be greater than a specified minimum speed.

Claim 6 (currently amended): The object detecting device of claim 4 further comprising:

first judging means for judging whether or not said object has been detected by said object detecting device;

second judging means for judging, when said first judging means judges that said object has not been [[not]] detected, whether data number of said histogram is larger than a standard data number or not; and

setting means for setting the first correction value of the histogram having the largest of said frequency numbers, when said second judging means judges that the data number of said histogram is larger than said standard data number, as second correction value;

wherein said correcting means corrects the center position in the vertical direction of said scan range based further on said second correction value.

Claim 7 (original): The object detecting device of claim 6 further comprising:

second storing means for storing said second correction value; and

third judging means for judging whether or not said second storing means is storing said second correction value;

wherein said correcting means corrects the center position in the vertical direction of said scan range based on said second correction value if said third judging means judges that said second storing means is storing said second correction value.

Claim 8 (original): The object detecting device of claim 6 wherein said correcting means corrects the center position in the vertical direction of said scan range based on a preliminarily set standard correction value if said third judging means judges that said second storing means is not storing said second correction value.

Claim 9 (original): A method of detecting an object; said method comprising the steps of:

emitting electromagnetic waves in a forward direction by scanning a scan range in horizontal and vertical directions;

receiving reflected waves of said electromagnetic waves;

obtaining level of said reflected waves received in the step of receiving;

calculating a first correction value based on vertical position of a zone in said scan range where the level of said received waves is the highest and the center position of said scan range in the vertical direction; and

correcting the center position in the vertical direction of said scan range based on said first correction value calculated in the step of calculating.